

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated May 21, 2009. A Request for Continued Examination (RCE) is being filed concurrently herewith. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1, 4-6, 8-11 and 16-17 are pending in this application, wherein claims 2, 3 and 7 are being canceled without prejudice or disclaimer; claims 1, 4, 8 and 16 are being amended to more particularly point out and distinctly claim the subject invention, and new claim 17 is being submitted for consideration.

All amendments to the application are fully supported throughout the disclosure of the invention. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejections

The Examiner rejected claims 1, 4-8 and 11 under 35 U.S.C. §102(e) as being anticipated by Nikander (US Publication No. 2002/0133607). Further, the Examiner rejected claims 2-3 under 35 U.S.C. §103(a) as being unpatentable over Nikander in view of Turner et al. (US Patent No. 6,018,524); claims 9-10 over Nikander in view of Wada et al. (US Patent No. 5,517,618); and claim 16 over Akhtar (US Patent No. 6,769,000) in view of Nikander. Applicants respectfully traverse the above-outlined rejections for the reasons set forth below.

The present invention as recited in claim 1 is directed to a communication system, comprising: a processor for issuing and guaranteeing a public key certification; a memory for holding prefix allocation allow/prohibit information of a terminal device, the prefix allocation allow/prohibit information indicating whether allocation of a prefix is allowed or prohibited; and a communications interface for receiving a public key issue certification request from the terminal device and rewriting the prefix allocation allow/prohibit information. The processor is structured to run a routine in which the public key certification issue request is received from the terminal device, wherein a public key certification of the terminal device is issued by the server device, the prefix allocation allow/prohibit information is rewritten by the

server device, and the certification is sent to the terminal device from the server device, the communications interface communicates with a terminal control device for managing the terminal device and for managing location information of the terminal device, the processor is structured to run a routine in which an inquiry on whether prefix allocation is allowed or prohibited is received from the terminal control device, the prefix allocation allow/prohibit information being searched by the server, and the information acquired being sent to the terminal control device from the server device, and the terminal control device has a DHCP-PD function and allocates prefix information using the DHCP-PD function.

The present invention as recited in claim 4 is directed to a terminal control device comprising: a connection for communication with a server device containing a function to issue and guarantee public key certification, and prefix allocation allow/prohibit information which indicates whether allocation of a prefix is allowed or prohibited; a transceiver for acquiring public key certification from the server device; and a routine to maintain security by utilizing IPsec technology, and a storage to store a terminal device location information, wherein information confirming the identity of the terminal is received from the terminal device, and a terminal device public key certification is acquired. Information allowing prefix allocation for the terminal device is loaded from the server device, and if the server device approves allocation of a prefix to the terminal device, then the prefix information is reported to the terminal device. The terminal control device has a DHCP-PD function and allocates prefix information using the DHCP-PD function, and information confirming the identity of the terminal has a home address creating in the terminal from the prefix information and the terminal interface identifier.

Further, the present invention as recited in claim 8 is directed to a terminal authentication method for a communication system containing an information processor device with a prefix allocation function, and a server device containing a processor and a memory to guarantee and issue public key certification, and a visited network and a terminal device capable of connecting to the visited network, and a home network which is associated with the terminal device, and which is mutually connected with the visited network, and a terminal control device connected to the home network via the visited network, wherein the server device issues a public key certification to the terminal device and rewrites prefix allocation information for the terminal device; the information processor device receives a prefix allocation request from the terminal device, and makes an inquiry for prefix allocation allow/prohibit information to the server device, and allocates prefix information to the

terminal device when allocation of the prefix is approved, the prefix allocation allow/prohibit information indicating whether allocation of a prefix is allowed or prohibited; the terminal control device receives information confirming the identity of the terminal device from the terminal device, and sends prefix information of the terminal device to the information processor device; the information processor device establishes a security association between the terminal device to which the prefix information is issued and the terminal control device; the terminal control device has DHCP-PD function and allocates prefix information using DHCP-PD function; and the terminal creates a home address from the prefix information and the terminal interface identifier.

Lastly, the present invention as recited in claim 16 is directed to a combination method for authentication and location registration of a terminal located in a visited network comprising: powering on a terminal; sending a router advertisement to the terminal from a visited network router; creating a care of address (CoA) in the terminal; sending a device authentication request to the visited network router; sending a public key certification issue request with a public key and a terminal ID to a calling authority server over an IP protocol network; issuing a public key certification issue response from the calling authority server (CA) compatible with IPv6 protocol; establishing a IPsec security association (SA), and digital signature via IKE (internet key exchange) and a secure communication channel using phase I and II IPsec ISAKMP protocols between the terminal in the visited network and a home agent server which is linked to the calling authority server (CA) and which located in a home area; making a location binding update in the terminal using the IPsec security association (SA); sending a request to check the public key certification to the calling authority server (CA) from the home agent server; holding prefix allocation allow/prohibit information of a terminal device, the prefix allocation allow/prohibit information indicating whether allocation of a prefix is allowed or prohibited; responding from the calling authority server whether prefix allocation is allowed with a prefix and creating a home address for the terminal; discovering and obtaining a home address of the home agent server by the terminal; making a location binding update by the terminal using a binding cache from the home agent server; thereby providing an authentication method for verifying a terminal authenticity by linking a digital signature method with a location binding update method, wherein the terminal control device has a DHCP-PD function and allocates prefix information using the DHCP-PD function, and the terminal creates a home address from the prefix information and the terminal interface identifier.

In contrast to the present invention, Nikander is directed to a method of verifying that a host coupled to an IP network is authorized to use an IP address which the host claims to own. Nikander merely discloses verifying the address of a node. Thus, Nikander fails to show or suggest, among other features, any structure of operation wherein a terminal control device has DHCP-PD function and allocates prefix information using DHCP-PD function; nor the terminal creating a home address from the prefix information and the terminal interface identifier. Thus, Nikander by itself fails to anticipate every feature of the claimed invention.

The secondary references of Turner and Wada both fail to provide any disclosure, teaching or suggestion that makes up for the deficiencies in Nikander. Both references were merely cited for features from the dependent claims. At best, Turner discloses prefix allocation information, while Wada discloses connecting between networks by GW. Even if all three references were combined, such a combination would still fail to show or suggest, among other features, any structure of operation wherein a terminal control device has DHCP-PD function and allocates prefix information using DHCP-PD function; nor the terminal creating a home address from the prefix information and the terminal interface identifier. Therefore, the present invention as claimed would not have been obvious to one of skill the art given all three references.

Similarly, Akhtar is merely directed to a communications architecture for enabling IP-based mobile communications. By itself, Akhtar fails to show or suggest, among other features, any structure of operation wherein a terminal control device has DHCP-PD function and allocates prefix information using DHCP-PD function; nor the terminal creating a home address from the prefix information and the terminal interface identifier, as in the present invention. Nikander, cited as a secondary reference, already suffers from the deficiency of lacking any showing or suggestion for those same features and elements. Thus, the combination of these two references cannot then embody features that are both lack separately. Neither reference provides any showing or suggestion that would motivate their combination so as to embody features that both by themselves are missing. Thus, here as well, the present invention as claimed would not have been obvious to one of skill the art given both references.

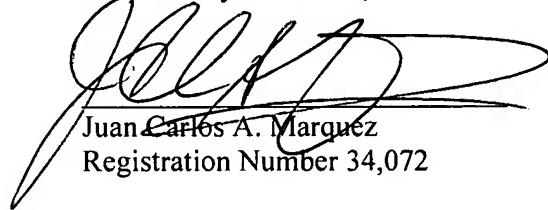
All in all, the present invention is neither anticipated nor rendered obvious in view of the prior art references cited and applied above. Rather, the present invention as claimed is distinguishable and thereby allowable over the prior art of record.

Conclusion

In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

Respectfully submitted,



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